

CLAIM AMENDMENTS

1-70. (canceled)

71. (currently amended): A method to deliver a drug to a target tissue or organ, which method comprises
administering to a subject containing said tissue or organ a composition of nanoparticles, said nanoparticles comprising a liquid fluorocarbon core coated with a lipid/surfactant layer, wherein said drug is contained in said layer and not carried or deposited in the interior of said nanoparticle; and
wherein said coated particles are coupled to a targeting ligand that binds to a moiety on or in said tissue or organ; and
wherein said targeting ligand effects prolonged contact between the lipid bilayer of cells of said tissue or organ with the lipid/surfactant layer of said coated particles such that delivery of the drug to the tissue or organ is facilitated.

72. (previously presented): The method of claim 71, wherein said drug is a nucleic acid and said surfactant/lipid monolayer comprises at least one cationic lipid.

73. (previously presented): The method of claim 72, wherein said nanoparticles further comprise at least one anionic lipid.

74. (previously presented): The method of claim 71, wherein said prolonged contact is localized to the surface of cells contained in said tissue or organ.

75. (previously presented): The method of claim 71, wherein said targeting ligand is selected from the group consisting of antibodies, antibody fragments, peptides, asialoglycoproteins, polysaccharides, aptamers, nucleic acids, peptidomimetics, and drugs.

76. (previously presented): The method of claim 75, wherein said targeting ligand is an antibody.

77. (previously presented): The method of claim 71, wherein said fluorocarbon is perfluorooctylbromide.

78. (previously presented): The method of claim 71, wherein said fluorocarbon is a liquid with a boiling point above 30°C.

79. (previously presented): The method of claim 78, wherein said fluorocarbon liquid has a boiling point above 90°C.

80-81. (canceled)

82. (previously presented): The method of claim 71, wherein said lipid/surfactant layer is composed of a material selected from the group consisting of a natural or synthetic phospholipid, a fatty acid, cholesterol, lysolipid, sphingomyelin, tocopherol, glucolipid, stearylamine, cardiolipin, a lipid with ether or ester linked fatty acids and a polymerized lipid.

83. (previously presented): The method of claim 71, wherein said surfactant is at least one nonionic and/or amphoteric surfactant.

84. (previously presented): The method of claim 71, wherein said composition contains an emulsifying and/or solubilizing agent.

85. (previously presented): The method of claim 71, wherein said coated nanoparticles have a diameter in the range of 0.01 to 10 microns.

86. (previously presented): The method of claim 85, wherein said coated nanoparticles have a diameter in the range of approximately 0.1 to 0.5 microns.

87. (previously presented): The method of claim 71 wherein the drug is an anti-inflammatory, an antirheumatic, a neuromuscular blocker, a sedative, an antiallergic drug,

a hormone, an anti-helminthic, an antimalarial, an antituberculosis drug, an immune serum, an antitoxin, an antivenom, a rabies prophylaxis product, a bacterial vaccine, or a viral vaccine.

88. (previously presented): The method of claim 71 wherein the drug is an androgen, a progestin, an estrogen, or an antiestrogen.

89. (previously presented): The method of claim 71 wherein the drug is spiroplatin, carboplatin, mitomycin, ansamitocin, bleomycin, cytosine arabinoside, arabinosyl adenine, mercaptopolylysine, busulfan, chlorambucil, melphalan, mercaptopurine, mitotane, procarbazine hydrochloride dactinomycin (actinomycin D), rapamycin, manumycin A, TNP-470, plicamycin (mithramycin), aminoglutethimide, estramustine phosphate sodium, flutamide, leuprolide acetate, megestrol acetate, tamoxifen citrate, testolactone, trilostane, amsacrine (m-AMSA), interferon α -2a, interferon α -2b, teniposide (VM-26), vinblastine sulfate (VLB), bleomycin sulfate, hydroxyurea, procarbazine, dacarbazine, colchicine, or paclitaxel or other taxane.

90. (previously presented): The method of claim 71 wherein the drug is an aminoglycoside, a xanthine derivative, theophylline, aminophylline, a chelating agent, a mercurial diuretic, a cardiac glycoside, glucagon, parenteral iron, hemin, a hematoporphyrin, muramyl dipeptide, muramyl tripeptide, a microbial cell wall component, a lymphokine, a synthetic dipeptide N-acetyl-muramyl-L-alanyl-D-isoglutamine, ketoconazole, nystatin, griseofulvin, flucytosine (5-fc), miconazole, amphotericin B, ricin, a cyclosporin, a β -lactam antibiotic, a growth hormone, a melanocyte stimulating hormone, estradiol, beclomethasone dipropionate, betamethasone, betamethasone acetate, or betamethasone sodium phosphate.

91. (previously presented): The method of claim 71 wherein the drug is betamethasone disodium phosphate, betamethasone sodium phosphate, cortisone acetate, dexamethasone, dexamethasone acetate, dexamethasone sodium phosphate, flunisolide, hydrocortisone, hydrocortisone acetate, hydrocortisone cypionate, hydrocortisone sodium phosphate, hydrocortisone sodium succinate, methylprednisolone, methylprednisolone acetate, methylprednisolone sodium succinate, paramethasone acetate, prednisolone, prednisolone acetate, prednisolone sodium

phosphate, prednisolone tebutate, prednisone, triamcinolone, triamcinolone acetonide, triamcinolone diacetate, triamcinolone hexacetonide, fludrocortisone acetate, oxytocin, vasopressin, vitamins, retinoids, manganese super oxide dismutase, alkaline phosphatase, phenprocoumon, heparin, propranolol, or glutathione.

92. (previously presented): The method of claim 71 wherein the drug is isoniazid, capreomycin sulfate cycloserine, ethambutol hydrochloride ethionamide, pyrazinamide, rifampin, streptomycin sulfate, acyclovir, amantadine azidothymidine, ribavirin, vidarabine monohydrate, diltiazem, nifedipine, verapamil, erythritol tetranitrate, isosorbide dinitrate, nitroglycerin (glyceryl trinitrate), pentaerythritol tetranitrate, dapsone, chloramphenicol, neomycin, cefaclor, cefadroxil, cephalexin, cephradine erythromycin, clindamycin, lincomycin, amoxicillin, ampicillin, bacampicillin, carbenicillin, dicloxacillin, cyclacillin, picloxacillin, hetacillin, methicillin, nafcillin, oxacillin, penicillin including penicillin G and penicillin V, ticarcillin rifampin and tetracycline, diflunisal, ibuprofen, indomethacin, meclufenamate, mefenamic acid, naproxen, oxyphenbutazone, phenylbutazone, piroxicam, sulindac, tolmetin, aspirin, chloroquine, hydroxychloroquine, metronidazole, quinine, meglumine antimonite, penicillamine, paregoric, codeine, heroin, methadone, morphine and opium, deslanoside, digitoxin, digoxin, digitalin and digitalis, atracurium mesylate, gallamine triethiodide, hexafluorenum bromide, or metocurine iodide.

93. (previously presented): The method of claim 71 wherein the drug is pancuronium bromide, succinylcholine chloride (suxamethonium chloride), tubocurarine chloride and vecuronium bromide, amobarbital, amobarbital sodium, aprobarbital, butabarbital sodium, chloral hydrate, ethchlorvynol, ethinamate, flurazepam hydrochloride, glutethimide, methotrimeprazine hydrochloride, methypylon, midazolam hydrochloride, paraldehyde, pentobarbital, pentobarbital sodium, phenobarbital sodium, secobarbital sodium, talbutal, temazepam and triazolam, bupivacaine hydrochloride, chloroprocaine hydrochloride, etidocaine hydrochloride, lidocaine hydrochloride, mepivacaine hydrochloride, procaine hydrochloride and tetracaine hydrochloride, droperidol, etomidate, fentanyl citrate with droperidol, ketamine hydrochloride, methohexital sodium, or thiopental sodium.